

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in the United Kingdom on 03/20/2004. It is noted, however, that applicant has not filed a certified copy of the 0406307.9 application as required by 35 U.S.C. 119(b).

Specification

2. The disclosure is objected to because of the following informalities: The use of "kerb" and "kerbstone" should be changed to "curb" and "curbstone." Appropriate correction is required.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "40" SHOWN IN Figure 2; "142" shown in Figure 8; "156" shown in Figure 10; "232" shown in Figure 11; "242" shown in Figure 11; "224" shown in Figure 23. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being

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amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claims 1-34 are objected to because of the following informalities: The use of "kerb" and "kerbstone" should be changed to "curb" and "curbstone." Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over King (GB942255) in view of Smith (4,113,400).

Regarding claim 1, King teaches a kerbstone having a body defined by a leading surface (6), a front face (3), a rear face, a base (2) and first and second end faces, the leading surface comprising a top face and a forward face, the body being formed from a

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synthetic or elastomeric material (page 1, Lines 39-43) and defining first and second retention formations (20, 21) on the first and second end faces. King fails to teach the first and second retention formations extend from proximate the base to a position short of the top face. Smith teaches barriers with retention formations (23, 25) that extend proximate the base short of the top face. It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the retention formations of King for the formations of Smith as it is obvious to substitute one known element for another known element to yield predictable results.

Regarding claim 2, King teaches the leading surface defines a first portion which is exposed in use, and the front face, rear face, base, and, first and second end faces, define a second portion which is buried in use and a further retention formation is provided on the second, buried portion (See Figure 7).

Regarding claim 3, King teaches the first retention formation comprises a projection from the first end face and the second retention formation comprises a recess, recessed into the second end face (See Figure 5).

Regarding claim 4, King teaches the further retention formation includes a flange arrangement (26).

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Regarding claim 5, King teaches the flange arrangement comprises a flange on the front face (See Figure 7).

Regarding claim 6, King teaches the flange arrangement comprises a flange on the rear face (26, See Figure 7).

Regarding claim 7, King teaches the body defines a hollow cavity.

Regarding claim 8, King teaches the body is open at the base (See Figure 7).

Regarding claim 9, King teaches the body defines one or more ribs (16), the one or more ribs dividing the cavity into at least two compartments.

Regarding claim 11, King and Smith teach the invention as described above but fail to explicitly teach the synthetic or elastomeric material is low density polyethylene. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the material a low density polyethylene, since it has been held to be within the general skill of a worker in the art to select known material on the basis of its suitability for the intended use as a matter of obvious design choice.

Regarding claim 12, King and Smith teach the invention as described above but fail to explicitly teach the first portion is formed from a different synthetic or elastomeric

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material to the second portion. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the first portion a different material than the second portion, since it has been held to be within the general skill of a worker in the art to select known material on the basis of its suitability for the intended use as a matter of obvious design choice. Further, the examiner takes Official Notice that it would have been obvious to one of ordinary skill in the art at the time of the invention to make the exposed portion of the curb a different, stronger material than the buried portion of the curb as it is old and well known to make a material stronger if it might be exposed to collisions or other elements.

Regarding claim 13, King and Smith teach the invention as described above except for the material forming the first portion is 25 to 50% stronger than the material forming the second portion. The examiner takes Official Notice that it would have been obvious to one of ordinary skill in the art at the time of the invention to make the exposed portion of the curb stronger than the buried portion of the curb as it is old and well known to make a material stronger if it might be exposed to collisions or other elements. Further it has been held that it is within the general skill of a worker in the art to select known material on the basis of its suitability for the intended use as a matter of obvious design choice.

Regarding claim 14, King teaches the kerbstone has a front wall, a rear wall, a top wall, a forward wall and first and second end walls but fails to explicitly teach the top wall and forward wall have a wall thickness 50% to 150% greater than that of the rear wall, most

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preferably 100% greater. The examiner takes Official Notice that it would have been obvious to one of ordinary skill in the art at the time of the invention to make the forward wall of the curb thicker and stronger than the rear wall of the curb as it is old and well known to make a material stronger if it might be exposed to collisions or other elements. Further it has been held that it is within the general skill of a worker in the art to select known material on the basis of its suitability for the intended use as a matter of obvious design choice.

Regarding claim 32, King and Smith teach the invention as described above but fail to teach the ribs have a higher density in the upper part of the kerbstone. The examiner takes Official Notice that it would have been obvious to one of ordinary skill in the art at the time of the invention to make the exposed portion upper portion of the curb stronger than the buried portion of the curb as it is old and well known to make a material stronger if it might be exposed to collisions or other elements. Further it has been held that it is within the general skill of a worker in the art to select known material on the basis of its suitability for the intended use as a matter of obvious design choice.

Regarding claim 33, the combination of King and Smith teaches the first retention formation defines an external, upward-facing abutment surface and the second retention formation defines an internal, downward-facing abutment surface, the abutment surfaces engaging, in use, so that the second kerbstone is at least partially supported by the first kerbstone.

6. Claims 10, 16 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over King (GB942255) in view of Smith (4,113,400) as applied to claim 1 above, and further in view of Daley (3,203,327).

Regarding claim 10, King and Smith teach the invention as described above but fail to teach each of the one or more ribs is scalloped proximate the base. Daley teaches a curb with ribs (39) that are scalloped (40) proximate to the base. It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the ribs of King for the ribs of Daley as it is obvious to substitute one known element for another known element to yield predictable results.

Regarding claim 16, King and Smith teach the invention as described above but fail to teach the leading surface has a non-slip finish. Daley teaches a curb with a non-slip surface (35). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the curb of King with a non-slip surface as taught by Daley to make the curb safer for pedestrians.

Regarding claim 29, King and Smith teach the invention as described above but fail to teach the kerb has a light reflective surface over at least part of the front or top faces thereof. Daley teaches a curb with a light reflective surface (38) over at least part of the front face. It would have been obvious to one of ordinary skill in the art at the time the

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invention was made to include the light reflective surface of Daley on the curb of King to make motorists aware at night of the location of the curb.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over King (GB942255) in view of Smith (4,113,400) as applied to claim 1 above, and further in view of Braverman (5,497,101).

Regarding claim 15, King and Smith teach the invention as described above but fail to teach at least one of the rear face and front face has at least one hole for receiving, in use, a concrete mix. Braverman teaches a barrier with a front face with a hole (10) for receiving in use a concrete mix. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a hole for receiving concrete mix on a front face of the curb of King as taught by Braverman, to allow the curb to be easily moved then easily filled with concrete when a location for the curb is picked.

8. Claims 17-23, 26-28 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over King (GB942255) in view of Smith (4,113,400) as applied to claim 1 above, and further in view of Varga et al. (5,839,816) ("Varga").

Regarding claim 17, King and Smith teach the invention as described above but fail to teach a photovoltaic cell or a battery is received in the body. Varga teaches a road marker with a battery received in the body (BAT Figure 4E). It would have been

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obvious to one of ordinary skill in the art at the time of the invention to include the battery of Varga in the curb of King to allow lights or other electronics to be powered on the curb.

Regarding claim 18, King and Smith teach the invention as described above but fail to teach a light source is received in the body. Varga teaches a boundary road marker with a light source received in the body. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the light source of Varga in the curb of King to make motorists aware at night of the location of the curb.

Regarding claim 19, Varga further teaches the light source comprises one or more light emitting diodes, most preferably color variable light emitting diodes (Column 18, Lines 30-32).

Regarding claim 20, King and Smith teach the invention as described above but fail to teach a sensor is received in the body. Varga teaches a boundary road marker with a sensor (S) received in the body.

Regarding claim 21, Varga further teaches the sensor is a light sensor.

Regarding claim 22, King and Smith teach the invention as described above but fail to teach the kerbstone includes communication means to allow the kerb to communicate

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with a remote location. Varga teaches a boundary road marker with communication means to allow it to communicate with a remote location (Column 17, line 65—Column 18, Line 36). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the communication means of Varga on the curb of King to allow remote control of the curb.

Regarding claim 23, Varga further teaches the communication means comprises a wireless communication means (Column 4, Lines 45-50).

Regarding claim 26, the combination of King and Varga teaches the kerbstone includes a light source, preferably comprising one or more light emitting diodes, most preferably color variable light emitting diodes, whereby the light source may be activated remotely via the communication means.

Regarding claim 27, the combination of King, Smith and Varga teaches the kerbstone includes a sensor whereby data from the sensor can be passed from the kerbstone to a remote location via the communication means.

Regarding claim 28, the combination of King, Smith and Varga teaches the kerbstone includes a light source, preferably comprising one or more light emitting diodes, most preferably color variable light emitting diodes, whereby the light source may be activated remotely via the communication means.

Regarding claim 34, the combination of King and Varga further teaches at least two kerbstones in which power for the light source, sensor or communication means on one of the kerbstones is provided by a power supply on another of the kerbstones. Varga teaches the power for the road marker can be provided remotely (Column 18, Lines 36-38). Therefore the examiner takes official notice that running a series of lights from a remote power source is old and well known since placing a power source for each light, etc. would be expensive and unnecessary.

9. Claims 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over King (GB942255) in view of Smith (4,113,400) as applied to claim 1 above, and further in view of Cresse (2006/0028328).

Regarding claim 24, King and Smith teach the invention as described above but fail to teach the kerbstone comprises a sensor and a light source whereby activation of the sensor causes the light source to be illuminated or, where a variable color LED is provided causes the variable color LED to be illuminated or to change color. Cresse teaches a warning system with an approach sensor and a light warning system that is illuminated when the sensor senses an obstacle (abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the approach sensor of Cresse on the curb of King to alert motorists when they are about to hit the curb.

Regarding claim 25, Cresse further teaches the sensor is a vehicle approach sensor and the light source is illuminated intermittently to provide a warning signal.

10. Claims 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over King (GB942255) in view of Smith (4,113,400) as applied to claim 1 above, and further in view of Williams et al. (GB2109845) ("Williams").

Regarding claim 30, King and Smith teach the invention as described above but fail to teach having a drainage channel formed integrally therewith or attached thereto. Williams teaches a curbstone (24) with a drainage channel (34) attached thereto. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the drainage channel of Williams on the curb of King and Smith to prevent buildup of water on a roadway.

Regarding claim 31, Williams further teaches the front face of the kerbstone has one or more apertures (28) formed therein and in fluid communication with the drainage channel.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is listed on the attached PTO-892.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abigail A. Risic whose telephone number is (571)270-7819. The examiner can normally be reached on Monday-Thursday 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on (571) 272-6998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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